



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

JUN 13 2002

M. Elizabeth Darrough, Ph.D  
Director, Transportation Programs  
United States Enrichment Corporation  
6903 Rockledge Drive  
Bethesda, MD 20817-1818

Reference No. 02-0117

Dear Dr. Darrough:

This is in response to your letter dated April 18, 2002, requesting clarification regarding the requirements for marking your uranium hexafluoride cylinders under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

Section 173.420 of the HMR provides that uranium hexafluoride packagings must be designed, fabricated, inspected, tested and marked in accordance with the American National Standards Institute (ANSI) N14.1 (1990, 1987, 1982, 1971) in effect at the time the packaging was manufactured. Section 6.10.7 of ANSI N14.1-1990 states that the 30B cylinder's nameplate shall be marked in characters a minimum of 5/16" high as described in Figure 13(b). However, Figure 13(b) shows typical characters as 5/32" high and states that the dimensions shown can be varied to provide the information required. Similar inconsistencies exist for the 48-inch cylinders, in sections 6.11.7, 6.12.7 and 6.13.7 of ANSI N14.1, which reference Figures 13(c) and 13(d). Specifically, you ask whether the cylinders can be marked in accordance with the referenced figures, rather than the minimum heights referenced in the text sections of ANSI N14.1-1990.

From the information provided, it is our opinion that cylinders marked in conformance with the referenced figures would satisfy the requirements in the ANSI N14.1 standard. Also, as you stated in your letter, it is our understanding that the 2001 version of ANSI N14.1 will correct these inconsistencies by revising the text sections to agree with the figures.

I hope this information is helpful.

Sincerely,

Hattie L. Mitchell  
Chief, Regulatory Review and Reinvention  
Office of Hazardous Materials Standards



020117

173.420



April 18, 2002

BeHs  
§ 173.420(a)(2)  
Marking  
02-0117

Edward Mazzullo, Director  
Office of Hazardous Materials Standards  
U. S. Department of Transportation  
Room 8422  
400 Seventh Street, S. W.  
Washington, D. C. 20590-0001

Dear Mr. Mazullo:

This letter is written to request that the U. S. Department of Transportation (DOT) issue a written clarification of 49 CFR 173.420 (a)(2) regarding compliance with package marking requirements of American National Standard N14.1-1990. The United States Enrichment Corporation (USEC) discussed this regulation during an April 10, 2002 telephone conversation with Mr. Richard Boyle, Chief of DOT's Radioactive Materials Branch, Research and Special Programs Administration. During that conversation, Mr. Boyle agreed that internal inconsistencies in sections of ANSI N14.1-1990 and -1995 make it impossible to comply with one section without being out of compliance with the other. Because the 2001 version of ANSI N14.1 has corrected this problem and because USEC cylinders are in compliance with the drawings of ANSI N14.1-1990 and -1995 and with both the narrative and drawings of ANSI N14.1-2001, we believe that our cylinder markings are in compliance with ANSI N14.1. We are requesting that DOT confirm that interpretation.

Section 6.10.7 of ANSI N14.1-1990 and -1995 states that the 30B cylinder shall be marked as described in Figure 13(b). The section continues by saying that the minimum height for cylinder marking shall be 5/16". However, Figure 13(b) shows typical characters as 5/32" high and states that variances are allowed in the configuration to fit the available space on the nameplate. (Our engineering evaluation shows that the configuration as drawn is compatible with characters of 5/32" or 3/16" high but completely incompatible with characters 5/16" high.) Similar inconsistencies exist for the 48-inch cylinders, in sections 6.11.7, 6.12.7 and 6.13.7 of ANSI N14.1, which reference Figures 13(c) and 13(d). Based on USEC's engineering evaluation and professional judgment, we believe that a cylinder marked according to the above referenced figures, rather than the minimum heights referenced in the narrative sections, is in compliance with, and meets the intent of ANSI N14.1.

We are requesting a written clarification for our records for future reference. If there are questions concerning this matter, please contact me at (301) 564-3422 or USEC's Traffic Manager, Mr. Don McCarty at (740) 897-2668.

Sincerely,



M. Elizabeth Darrough, Ph.D.  
Director, Transportation Programs

cc:

R. Boyle, DOT  
B. Halcomb, PORTS  
R. Holliday, PORTS  
L. Krause  
D. McCarthy, PORTS  
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